REMARKS

Claims 1-16 are pending for further examination. Claims 1, 4 and 8 have been amended. Applicants respectfully requests entry of these amendments.

Claims 1-18 were rejected under 35 U.S.C. § 112, second paragraph, as indefinite.

Claims 1-5 and 7 were rejected under 35 U.S.C. § 102(e) as anticipated by U.S. Patent No. 6,776,809 (Shimazu).

Applicants thank the Examiner for recognizing that claims 8-16 include allowable subject matter.

Claims 1, 4 and 8 have been amended.

Claim 1 has been amended and now recites that "a portion of the liquid supplied from above each of the vaporization flow paths in the vertical direction is vaporized by transmitted heat from the heating gas, and the remaining portion of the liquid and the vaporized liquid come into contact with each other inside each of the vaporization flow paths." Support for this amendment can be found, for example, in Fig. 3, page 15, lines 2-5 and page 17, lines 14-17. Claim 1 has also been amended to more clearly describe the features of the claim.

Claims 4 and 8 have been amended to more clearly describe the features of the claims. In particular, the phrase "in the direction of gravity" has been replaced with "in a vertical direction."

No new matter has been added.

In light of the amendment to claims 1 and 8, Applicants respectfully requests that the rejection of claims 1-18 as indefinite be withdrawn. In addition, claims 8-16 should now be allowable.

Claims 1-5 and 7

Claim 1 now recites that "a portion of the liquid supplied from above each of the vaporization flow paths in the vertical direction is vaporized by transmitted heat from the heating gas, and the remaining portion of the liquid and the vaporized liquid come into contact with each other inside each of the vaporization flow paths." Claim 1 does not require any mechanism to efficiently atomize or vaporize the liquid and does not require pressurization to vaporize the liquid. In some embodiments, this feature enables efficient and rapid vaporization of the liquid because the portion of the liquid supplied from above each of the vaporization flow paths and the vaporized liquid come into contact due to liquid's fall from the top to the of the vaporization flow paths. This allows for accelerated preheating and refinement of the portion of the liquid supplied from above each of the vaporization flow paths.

In contrast, the Shimazu patent does not disclose the claimed feature. Instead, the Shimazu patent discloses that the water supplied by the pressure regulating valve 52 is sprayed by the nozzles 54 downwardly against the reformed gas flowing horizontally and mixes with the reformed gas to form mixed gas (*see* Fig. 2 and col. 4, line 61 – col. 5, line 14).

In light of the above, Applicants respectfully requests that the rejection of claim 1 as anticipated by the Shimazu patent be withdrawn.

The dependent claims should be patentable for at least the reasons discussed above with respect to claim 1. Furthermore, the dependent claims recite additional features that make those claims independently patentable.

It is believed that all of the pending claims have been addressed. However, the absence of a reply to a specific rejection, issue or comment does not signify agreement with or concession of that rejection, issue or comment. In addition, because the arguments made above may not be exhaustive, there may be reasons for patentability of any or all pending claims (or other claims) that have not been expressed. Finally, nothing in this paper should be construed as an intent to concede any issue with regard to any claim, except as specifically stated in this

paper, and the amendment of any claim does not necessarily signify concession of unpatentability of the claim prior to its amendment.

Please apply any other charges or credits to deposit account 06-1050.

Respectfully submitted,

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